

competing requirements create a set of tradeoffs that make the task of designing the amplifier a particularly difficult one.--

Please replace paragraph 4, beginning at page 2, line 4, with the following amended paragraph:

--Current approaches to designing the driver amplifier are based on a distributed amplifier architecture. This type of an amplifier connects a number of parallel amplifier cells that are typically made up of a single transistor or a cascoded pair of transistors. The limiting function is achieved by making the amplifier work in deep saturation. The power compression in this design, however, causes about 3-4 dB of gain loss, requiring more cells to achieve the desired overall gain or several cascaded devices. A larger number of amplifier cells, however, results in lower bandwidth and increased power consumption. An alternative approach separates the limiting function from the amplifier by using a limiter circuit that drives one or more distributed amplifiers such that the amplifier need not operate in saturation region. There are drawbacks to this approach as well. At 40_Gb/s, most of the circuitry is implemented in a single-ended architecture and as such, the addition of a single-ended limiter reduces the overall achievable gain, while the power levels remain as another constraint.--

Please replace paragraph 18, beginning at page 5, line 11, with the following amended paragraph:

--A simplified block diagram of a wideband amplifier 100 according to one embodiment of the invention is shown in Figure 1. Amplifier 100 includes a preamplifier 102 that receives a differential input signal V_{in} at its inputs IN1 and IN2. Preamplifier 102 acts as a limiter as well as a divider to produce a pair of limited output signals V_{o1} and V_{o2} that are in phase with respect to each other. Signals V_{o1} and V_{o2} are respectively applied to two input gate lines 106 and 108 of a combiner distributed amplifier 104. The output OUT of combiner distributed amplifier 104 provides the final output of amplifier 100. Distributed amplifier 104 is shown as having five amplifier cells 110 in each of its halves. It is to be understood, however, that this is for illustrative